

ABSTRACT OF THE DISCLOSURE:

A vehicle brake having a brake monitoring and sensor system attached to a brake shoe of a brake assembly for monitoring of temperature and wear of a brake shoe lining of a vehicle. The vehicle brake monitoring and sensor system includes a brake assembly for frictional braking of a vehicle. The brake assembly includes a brake shoe lining having a
5 brake shoe and a brake pad for frictional engagement with the brake assembly; and the brake shoe lining has first rivet openings with rivets therein, and has second rivet openings with no rivets therein. The vehicle brake monitoring system also includes a sensor system having a first sensing element and a second sensing element each connected to the brake shoe; the first
10 sensing element is embedded in one or more of the first rivet openings with the rivets therein; and the second sensing element is embedded in one or more of the second rivet openings having no rivets therein. The first sensing element is for generating a first electrical signal in response to sensing changes in the temperature of the brake shoe generated by heat in the brake shoe and transmitted to one or more rivets in the first rivet openings. The second
15 sensing element is for generating a second electrical signal in response to sensing a predetermined depth of wear of the brake pad. The vehicle brake monitoring and sensor system further includes a monitoring unit for processing the first and second electrical signals generated by the first and second sensing elements.